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(74) Agents: **OKABE, Masao** et al.; No. 602, Fuji Bldg., 2-3,
Marunouchi 3-chome, Chiyoda-ku, Tokyo 1000005 (JP).

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(71) Applicant (for all designated States except US): **CANON
KABUSHIKI KAISHA** [JP/JP]; 3-30-2, Shimomaruko,
Ohta-ku, Tokyo, 1468501 (JP).

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(72) Inventors; and

(75) Inventors/Applicants (for US only): **KENMOKU,**
Takashi [JP/JP]; c/o CANON KABUSHIKI KAISHA,
3-30-2, Shimomaruko, Ohta-ku, Tokyo, 1468501 (JP).
FUKUI, Tatsuki [JP/JP]; c/o CANON KABUSHIKI
KAISHA, 3-30-2, Shimomaruko, Ohta-ku, Tokyo,
1468501 (JP). **MIHARA, Chieko** [JP/JP]; c/o CANON
KABUSHIKI KAISHA, 3-30-2, Shimomaruko, Ohta-ku,
Tokyo, 1468501 (JP). **KUSAKARI, Ako** [JP/JP]; c/o
CANON KABUSHIKI KAISHA, 3-30-2, Shimomaruko,
Ohta-ku, Tokyo, 1468501 (JP). **YANO, Tetsuya** [JP/JP];
c/o CANON KABUSHIKI KAISHA, 3-30-2, Shimo-
maruko, Ohta-ku, Tokyo, 1468501 (JP).

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(54) Title: **POLYHYDROXYALKANOATE HAVING VINYL GROUP, ESTER GROUP, CARBOXYL GROUP, AND
SULFONIC GROUP, AND METHOD OF PRODUCING THE SAME**

(57) Abstract: To provide a novel polyhydroxyalkanoate having a reactive functional group in a molecule and a method of produc-
ing the same; and a novel polyhydroxyalkanoate having a new function obtained by chemically modifying the polyhydroxyalkanoate
having a reactive functional group and a method of producing the same. By utilizing a vinyl group of a polyhydroxyalkanoate con-
taining a unit having the vinyl group at a side chain thereof, a polyhydroxyalkanoate containing units having a carboxyl group, an
amide group, and a sulfonic group in a molecule is induced.

WO 2005/121207 A3

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2004/038512 A (CANON KABUSHIKI KAISHA; MIHARA, CHIEKO; YANO, TETSUYA; KOZAKI, SHINYA;) 6 May 2004 (2004-05-06) claim 1	3
X	WO 2004/044213 A (CANON KABUSHIKI KAISHA; KENMOKU, TAKASHI; YANO, TETSUYA; MIHARA, CHIEK) 27 May 2004 (2004-05-27) claim 1	4
A	EP 1 336 635 A (CANON KABUSHIKI KAISHA) 20 August 2003 (2003-08-20) claim 2	1
P, X	WO 2004/061530 A (CANON KABUSHIKI KAISHA; MIHARA, CHIEKO; YANO, TETSUYA; KOZAKI, SHINYA;) 22 July 2004 (2004-07-22) claim 1	1,2

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Niaounakis, M

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Information on patent family members

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